## CLAIMS:

1. A magnetic recording system comprising:

a magnetic head for recording and reproducing information;

a magnetic recording medium having a burst area with a burst signal recorded therein for positioning said magnetic head; and

a signal processor for processing the burst signal read out by said magnetic head;

wherein said burst area has a first area with said burst signal recorded therein and a second area other than the first area; and

wherein a signal having a higher frequency than the burst signal is recorded in said second area.

A magnetic recording system comprising:

a magnetic head for recording and reproducing information;

a magnetic recording medium having a burst area with a burst signal recorded therein for positioning said magnetic head; and

a signal processor for processing the burst signal read out by said magnetic head;

wherein said burst area includes a dummy area where a signal having a bit length shorter than the minimum bit length of the recorded bits constituting said burst signal is recorded.

A magnetic recording system comprising:

a magnetic head for recording and reproducing

information;

a magnetic recording medium having a servo area with a servo signal recorded therein for positioning said magnetic head; and

a signal processor for processing the servo signal read out from said magnetic head;

wherein said servo area includes a first area having said servo signal recorded therein and a second area other than said first area; and

wherein said second area has recorded therein a signal higher in frequency than the recorded signal constituting said servo signal.

4. A magnetic recording system according to Claim 1;

wherein said magnetic recording medium has a user data area where user data are recorded; and

wherein the minimum frequency of said burst signal is higher than the minimum recording frequency of the signal recorded in said user data area.

5. A magnetic recording system according to Claim\_2,

wherein said magnetic recording medium has a user data area where the user data are recorded; and

wherein the minimum bit length of the recorded bits constituting said burst signal is shorter than the minimum bit length of the recorded bits constituting the signal recorded in said user data area.

6. A magnetic recording system according to Claim 1,

wherein said signal processor includes filter means for lowering the frequency of the signal recorded in said second area.

7. A magnetic recording system according to Claim 6,

wherein said filter means is a low-pass filter having a cut-off frequency lower than the frequency of the signal recorded in said second area.

8. A magnetic recording system according to Claim 1,

wherein the recording frequency of the signal recorded in said second area is an integer multiple of the frequency of said burst signal.

9. A magnetic recording system comprising:

a magnetic head for recording and reproducing information;

a magnetic recording medium having a servo area with a servo signal recorded therein for positioning said magnetic head and a user data area with the user data recorded therein; and

a signal processor for processing selected one of the servo signal and the user data read out by said magnetic head, said signal processor including a first low-pass filter for passing the user data and a second low-pass filter for passing the servo signal.

10. A magnetic recording system according to

Claim 9, further comprising an input signal selector arranged in the stage before said first low-pass filter and said second low-pass filter.

- 11. A magnetic recording system comprising:
- a magnetic head for recording and reproducing information;
- a magnetic recording medium having a servo area with a servo signal recorded therein for positioning said magnetic head and a user data area with the user data recorded therein;
- a signal processor for processing selected one of the servo signal and the user data read out by said magnetic head; and
  - a hard disk controller;

wherein said signal processor includes a read amplifier supplied with a reproduced signal from said magnetic head, and a low-pass filter supplied with the output of said read amplifier;

wherein said hard disk controller selects the cut-off frequency of said low-pass filter in accordance with whether said low-pass filter is supplied with the servo signal or the user data.

- 12. A magnetic recording system comprising:
- a magnetic head for recording and reproducing information;
- a magnetic recording medium on which a servo area including a gray code area and a burst area is formed; and

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s signal processor for processing the burst signal read out by said magnetic head, wherein;

said gray code area includes a first area in which a gray code signal is recorded and a second area other than the first area;

said burst area includes a third area in which a burst signal is recorded and a fourth area other than the third area,

a signal frequency recorded in the second area and the fourth area are higher than that of the signal in the first area and that of the signal recorded in the third area.

